Author Index

Page numbers in italics refer to abstracts of papers given at a meeting of the Genetical Society and to titles of books received.

Abdel-Rehim, A. H., 251–254
Abram, W. P., *424–425*
Adams, K., *426*
Aguiar-Perecin M. L. R de, 37–42
Allen, J. A. 103–105
Allendorf, F. W., 219–225
Alvarez, M. C., 3–7
Anderson, M., *426*
Arlett, C. F., *423, 429*
Arst, H. N., Jnr., *418, 421*
Arthur, W., *412–413* (bk. rev.)
Ashworth, A., *422*
Ayesh, R., *429*

Bailey, S. E. R., 251–254
Barbacid, M., *426–427*
Beacham, T. D., 313–322
Beardmore, J. A., 195–202
Berkovitz, A. W., *424*
Bianchi, F., 373–379
Bodmer, W. F., *428*
Borrino, E. M., 165–170
Brakefield, P. M., 9–14, 275–284
Brewer, F. M., *426*
Bridges, B. A., *422*
Brito-Babapulle, V., *423–424*
Broda, P., *420–421*
Brook, D., *423*
Broughton, B. C., *423*
Brown, C. S., *420*
Brownlee, A. G., *418*
Burke, J. F., *429*
Butlin, R. K., 107–110, 267–274

Cabrero, J., 235–243
Caddick, M. X., *418*
Cahalan, C. M., 65–70
Caligari, P. D. S., 165–170, 261–266, 285–287, 343–348, 349–352, 353–358
Callow, R. S., 171–177
Camacho, J. P. M., 235–243, 385–390
Cambrissa, V., 195–202
Capy, P., 209–217
Carritt, B., *419*
Carroll, C., *417*
Catovsky, D., *423–424*
Charlesworth, B., 71–83, 85–98
Charlesworth, D., 71–83, 85–98
Clay, K., 145–148
Clugston, C., *419*
Cole, S. R., 15–23
Cook, L. M., 251–254
Cooke, H. M. G., *424*
Costa, R., 195–202
Creighton, P., *417*
Curtis, C. F., 227–234
Curtis, Jill, 227–234
Curtis, V. E., 131–138

Daud, F., *417–418*
David, J. R., 209–217
Davies, K. E., *420*
Day, T. H., 107–110, 267–274
Delhanty, J. D. A., *419, 424, 430*

Edwards, J. H., *422–423*
Eggleston, P., 43–51

Fearon, C. H., 131–138
Fisher, R. A., *427–428*
Flavell, R., 111–120
Fominaya, A., 367–371
Ford, M. A., 99–102
Foroni, L., *423–424*
Fox, D. P., 333–341

Gerats, A. G. M., 373–379
Giles, V., 3–7
Gliddon, C., 65–70
Gold, J. R., 297–305
Green, M. H. L., *429*
Groot, S. P. C., 373–379

Hägele, K., 159–163
Halock, R., *420–421*
Hamer, D. H., (Ed.), *414* (bk. rev.)
Harcourt, S. A., *423*
Harper, P. S., *420, 423*
Hayter, A. M., 165–170, 261–266
Henderson, L. M., *423*
Hewitt, G. M., 187–194
Hoffmann, A. A., 203–207
Hopwood, D. A., *420*
Houghton, J. A., *417*
Hughes, J., 245–249
Hyytia, P., 209–217

Idle, J. R., *429*

James, M. R., *429*
Jayakar, S. D., 195–202
Jessop, A. P., *419*
Jinks, J. L., 121–129, 255–260, 261–266, 343–348, 349–352, 353–358, 397–411
Jouve, N., 367–371

Kay, Q. O. N., 99–102
Kemp, R. F. O., 391–395
King, D. P. F., 289–296
Klein, G., *428–429*
Knudsen, K. L., 219–225
Kunkel, L., *420*

Lamb, B. C., *421–422*
Lande, R., 323–332
LaThangue, N. B., *425–426*
Lawler, S. D., *427, 427–428*
Lawrence, M. J., 131–138
Leary, R. F., 219–225
Lehmann, A. R., *423, 429*
Levin, D. A., 145–148
Liss, A. R. (Ed.), *414* (bk. rev.)

McDonald, J. H., 359–366
McKenna, P. G., *424–425*
Macnab, J. C. M., *425–426*
McNaughton, I. H., 165–170
McNicholl, J., *419*
Marshall, C., *427*
Marshall, D. F., 131–138
Martini, G., 111–120
Mayne, L. V., *429*
Mazullo, H. A., *430*
Melo, J. V., *423–424*
Meredith, L., *423*
Miller, T. E., 381–383
Mulcahy, D. L., 139–144
Mulcahy, G. B., 139–144

Narayan, R. K. J., *417*
Newbold, R. F., *427*
Nigro, L., 195–202
North, J., *418*

O'Neill, K. L., *424–425*
Orr, A., *425–426*
Ortori, G. S., *417–418*
Owen, R. E., 25–36

Parkin, D. T., 15–23
Parmar, S., 381–383
Parreira, L., *423–424*
Parrington, J. M., *419–420*
Parry, E. M., *425*
Parry, J. M., *425*
Parsons, P. A., 203–207
Patel, R., *419*
Paterson, A., *420–421*
Pearson, P. L., *420*
Penketh, R. J. A., *424*
Phillips, I. R., *422*
Pike, S. F., *422*
Pontecorvo, G., *429*
Pooni, H. S., 121–129, 255–260, 397–411
Post, R. J., 149–158
Povey, S., *419–420, 422*
Powell, W., 165–170, 261–266, 285–287, 343–348, 349–352, 353–358
Price, H. J., 297–305
Puhler, A. (Ed.), *413* (bk. rev.)

Rabin, B. R., *422*
Raeder, U., *420–421*
Ramachandran, C., *417*
Richards, A. J., 245–249
Rider, S. H., *430*
Robinson, D., *423–424*
Roper, J. A., *417–418*
Rosenberg, M. J., (Ed.), *414* (bk. rev.)

Santos, J. L., 333–341
Sardharwalla, I., *418*
Sarfarasi, M., *420*
Shaffer, P. M., *421*
Shaw, D., *423*
Shaw, M. W., 187–194
Shephard, E. A., *422*
Shewry, P. R., 381–383
Singh, R. S., 209–217
Speier, H., 159–163
Stamp, Peter, *414–415*, (bk. rev.)

Taylor, P. D., 179–185
Thode, G., 3–7
Thomas, N. S. T., *420*
Thomas, W. T. B., 343–348, 349–352, 353–358
Thorgaard, G. H., 219–225
Toledo, J. F. F. de, 121–129
Tomkins, P., *417*
Traynor, J. D., *418*
Turner, B. J. (Ed.), *413–414* (bk. rev.)

van Dijk, H., 53–63
van Noordwijk, A. J., 275–284
Viseras, E., 385–390
Vosa, C. G., 37–42

Wallace, M. E., *420*
Warr, J. R., *426*
West, L. F., *419–420*
Wilkie, D., *419*
Willmer, P. G., 9–14
Withler, R. E., 313–322
Woodgate, R., *422*
Wright, A. J., 307–311

Zonta, L., 195–202

Index of Species

Page numbers in italics refer to the subjects of the paper.

Achatina fulica, 103
Achatina sylvatica 103–105
Adalia bipunctata, 9–14
Aegilops umbellulata, 112, 171, 172, 173
Agaricus bisporus, 391
Alburnus alburnus, 320
Anguilla spp, 413
Anoplarchus purpurescens, 313
Antirrhinum majus, 373, 377
Arianta arbustorum, 251–254
Aricia artaxerxes, 281
Asclepias incarnata, 145
Asclepias speciosa, 147
Asclepias verticillata, 145
Asellus aquaticus, 365
Aspergillus spp., 171
Aspergillus nidulans, 417–418, 418, 421

barley, *165–170, 261–266, 343–348, 349–352, 353–358*
Beta vulgaris, 131, 132, 135, 139
bovines, *417*
Branta canadensis, 22
Brassica compestris, 101, *165–170*
Brassica napus, 165–170
Brassica oleracea, 99, 101, 133

Campostoma anomalum, 297–305
Carica papaya, 103
Cepaea nemoralis, 251, 253
Ceremonial maize, *37–42*
Chinese hamster 419
Chironomus thummi piger, 159–163
Chironomus thummi thummi, 159–163
Chrothippus brunneus, 334, 336, 337
Cibolacris parviceps, 242
Clupea harengus, 289–296
Coelopa frigida, 107–110, 267–274
Colias, 365
Coprinus bilanatus, 391–395
Coprinus cinereus, 393, *418, 418–419*
Coprinus sassii, 391
Coprinus trisporus, 391
Coregonus clupeaformis, 321
cotton, 367
Crassostrea virginica, 289, 364
Cucumis anguria, 417
Cucumis metuliferus 417
Cucumis satisvus, 417
Cyprinidae (N. American minnows) *297–305*
Cyprinella, 302

Dactylis glomerata, 188
Danus plexippus, 289, 313
Drosophila, 107, 171, 268
Drosophila, melanogaster, 43–51, 71–83, 85–98, 163, 193, *195–202, 203–207, 209–217*, 373
Drosophila persimilis, 267
Drosophila pseudoobscura, 267, 268
Drosophila simulans, 203–207, 209–217
Drosophila subobscura, 268
Drosophila virilis, 203, 377

Endymion nonscriptus, 229
Eruca sativa, 99
Escherichia coli, 419, 422
Euchorthippus pulvinatus gallicus, 242

Fundulus heteroclitus, 289, 292, 313, 365

Gambusia affinis, 289, 295
Gasterosteus aculeatus, 223, 413
Geukensia demissa, 364
Gobius paganellus, 3–7
Gomphocerus sibiricus, 235
Gymnocephalus cernua, 365

Hordeum bulbosum, 261–266, 343–349, 349–352
Hordeum vulgare, 165–170, 172, *285–287*
human, *420, 423–424, 424, 424–425, 425, 425–426, 426, 427, 429, 430*

Iberis amara, 101

Katswonus pelamis, 320

Leavenworthia crassa, 99
Lesquerella densipila, 99, 101
Limicolaria aurora, 103
Limicolaria cailliaudi, 103–105
Limicolaria flammulata, 103
Limicolaria martensiana, 103
Locusta migratoria, 333–341
Lolium multiflorum, 133
Lolium perenne, 133, 136
Lolium spp., 143
Lycopersicon esculentum, 141
Lycopersicon peruvianum, 140, 143
Lycoperisicum peruvianum, 132, 133, 135, 136, 140

maize, 37–42, 367
Maniola jurtina, 275–284
Megalorchestia benedicti, 365
Megalorchestia californiana, 359–366
Melanoplus femur-rubrum, 386
Micropterus spp., 289, 295
Mimulus gutatus, 145
Mormoniella vitripennis, 367
mouse, 367, *420 428*
Musca autumnalis, 321
Myrmeleotettix maculatus, 187–194, 344, 336, 337, 339, 386
Mytilus californianus, 364
Mytilus edulis, 364

Neurospora, 93
Neurospora crassa, 391
Neurospora tetrasperma, 391
Nicotiana alata, 131, 133, 135
Nicotiana forgetiana, 131
Nicotiana rustica, 131–138, 165, *255–260*, 348, *397–411*
Nicotiana sanderae, 133
Nicotiana spp., 142, 165, 166, 169
Notemigonus crysoleucas, 297–305
Notropis lutrensis, 297–305
Notropis venustus, 297–305

Oenothera organensis, 99, 131, 133, 134, 136, 140, 142
Omocestus bolivari, *385–390*
Omocestus panteli, 338
Oncorhynchus keta, *313–322*
Orchestoidea californiana, see *Megalorchestia californiana*
Ornithogalum virens, 171

Papaver rhoeas, 99, 131, 133, 134, 135, 136, 141
Papaver spp., 143
Passer domesticus, *15–23*, 289
Petunia hybrida, *373–379*
Phanerochaete chrysosporium, *420–421*
Phaseanus colchicus, 22
Phlox cuspidata, *145–148*
Phlox drummondii, 147
Pimephales vigilax, *297–305*
Plantago lanceolata, *53–63*
Plantago major, 53, 54, 60
Pleuronectes platessa, 292, 313
Poa annua, 276
Poeciliopsis lucida, 313, 413
Porcellio scaber, 364
Primula sinensis, 227
Primula viscosa, 227
Primula vulgaris, *65–70*, *227–234*

Ranunculus acris, 131, 135
Raphanus raphanistrum, 99, 101
Raphanus sativus, 101, *165–170*
Rhombosolea plebia, 364
rodents, *427*, *428*

Saccharomyces cerevisiae, 367
Salmo clarki lewisi, 223
Salmo gairdneri, *219–225*, 289, 292, 320
Salmo salar, 223
Salmo trutta, 289
Schistocerca gregaria, *333–341*
Schizophyllum, 93
Schizophyllum commune, 393
Secale, 41
Secale, africanum, 172
Secale cereale, 133, *381–383*
Secale montanum, *381–383*
Simuliidae, 149
Simulium erythrocephalum, *149–158*
Sinapis alba, 99
Sinapis arvensis, 99–102
Solanum tuberosum, *165–170*
Stauroderus scalaris, *235–243*
Stethophyma grossum, 334
Stylidium carcifolium, 145
Stylidium confluens, 145
Stylidium elongatum, 145
Stylidium spathulatum, 145

Taraxacum (hybrids), *245–249*
Taraxacum alacre, 246
Taraxacum brevifloroides, 246
Thomomys bottae, 303
Tribolium, 93
Trifolium pratense, 133, 141
Trifolium spp., 143
Triticum aestivum, *165–170*, *367–371*

Uta stansburiana, 321

Warramaba, 340
Wheat, Chinese spring, *111–120*

Xiphophorus spp., 413

Zapalote chico, *37–42*
Zea mays (see also maize), 173, 373, 414–415
Zonotrichia capensis, 313

Subject Index

Entries followed by the letters (Abs) refer to abstracts of papers given at a meeting of the Genetical Society.

adult size, relationship with fitness components in seaweed fly, 107–110
advantage of extraneous pollen in *Phlox*, 145–148
aggression and response in competitive interactions, 43–51
allozyme markers in *Plantago lanceolata*, 53–63
allozyme polymorphism in *Drosophila simulans*, 209–217
analysis of centromere co-ordination in wheat hybrids, 367–371
ancestral reference population and diallel analyses, 307–311
aneuploidy, occurrence of, in Brassica and potatoes, 165–170
anti-microtubular drugs, resistance to, (Abs.), 426(28)

B-chromosome of grasshoppers, 187–194
B-chromosome systems in a grasshopper, 385–390
Bennett's model of somatic chromosome disposition, 171–177

Cancer studies (Abs.) 426(30), 427(31, 33), 428(35), 429(37, 39)
C-banding in maize, 37–42
centromere co-ordination in wheat hybrids, 367–371
character variance and enzyme heterozygosity in herring, 289–296
chromosomal arrangement, fixation of, 323–332
chromosomal arrangement, of haploid genomes, 171–177
chromosomal location of N-bands in locusts, 333–341
chromosomal location of structural genes, 381–383
chromosome-gene studies (Abs.), 417(2), 419(10), 423(21, 23), 424(24), 425(26), 427(33)
chromosome polymorphism in *Gobius*, 3–7
chromosomes, somatic and C-banding in maize, 37–42
cis-regulation in *Petunia hybrida*, 373–379
colour morphs of polymorphic snails, 251–254
competitive interaction in *Drosophila melanogaster*, 43–51
control of nucleolus volume in wheat, 111–120
cytological observation on effects of pollen irradiation, 165–170

diallel analysis, 307–311
differences between colour morphs, 251–254
diploid and triploid rainbow trout, 219–225
doubled haploids in barley breeding, 261–266, 353–358

enzyme heterozygosity and phenotypic characters in herring, 289–296
enzyme loci, variation at, in an Amphipod, 359–366
enzyme systems in *Taraxacum* hybrids, 245–249
evolution in populations of house sparrows, 15–23

fibroblasts of Chinese hamsters (Abs.), 419(9)
first cycle inbreds and second cycle hybrids, 397–411
fitness components and adult size in seaweed fly, 107–110

gametophytic self-incompatibility, 131–138, 139–144
gene-enzyme polymorphic system in *Drosophila*, 195–202
gene segregation in *Coprinus bilantus*, 391–395
genes, major, effects of on quantitative characters in barley, 343–348, 349–352
genetic control of meiotic drive, 187–194
genetic differentiation and evolution, 15–23
genetic neighbourhood sizes in primroses, 65–70
genetic studies, various, (Abs.), 417(3), 418(4, 6), 419(7), 420(11, 12, 14), 421(16), 422(18, 20), 425(27), 427(34), 428(35)
genetic variability, 53–63, 71–83, 85–95, 307–311
genetic variation for olfactory response to female odours, 203–207
genetic variation in an Amphipod, 359–366
genetic variation in recombination in *Drosophila*, 71–83, 85–98
genetic variation in social hymenoptera, 25–36
genetics of incompatibility in *Sinapsis arvensis*, 99–102
genetics of spot pattern in *Maniola jurtina*, 275–284
genome sizes in N. American minnows, 297–305
geographic varition in *Drosophila*, 209–217
gonadal sterility in *Chironomus thummi* hybrids, 159–163

habitat marking in *Drosophila*, 203–207
heterozygosity and developmental stability in rainbow trout, 219–225
heterozygosity, enzyme and phenotypic characters in fish, 289–296
heterozygosity in chum salmon, 313–322
heterozygote mosaic for interchange in a grasshopper, 235–243
heterozygous breeding lines to obtain homozygosity, 261–266
homostyle primroses, 227–234
hybrid-DNA recombination models (Abs.), 421(17)

immuno deficient patient, hypersensitivity of (Abs.), 423(22)
inbred populations, selection in, 195–202
incompatibility, genetics of in *Sinapsis arvensis*, 99–102
inheritance, isozyme, in diploid *Taraxacum* hybrids, 245–249
inversion polymorphism in seaweed fly, 267–274
inversion systems and sex difference in *Simulium*, 149–158
irradiated pollen selfs in cultivars of barley, 285–287

karyotypic selection on inversion polymorphism, 267–274
knob-heterochromatin (Abs.), 417(1)

male sterility in *Plantago lanceolata*, 53–63
mitochondrial activity of anti-melanoma acids (Abs.), 419(8)
morph frequency and distribution in primroses, 227–234
mutagenesis and UV survival (Abs.), 418(5), 422(19)

N-band and nucleolus identification, 333–341
nitrogen metabolite repression (Abs.), 421(15)
nucleolus volume, control of, in wheat, 111–120

Partial sib mating and sex ratio equilibrium, 179–185
pedigree inbreeding in *Nicotiana rustica*, 255–260
pollen, extraneous advantage in *Phlox*, 145–148
pollen, irradiation in diploid and polyploid crops, 165–170
pollen, selfs irradiated in barley cultivars, 285–287
polygenic differences in B-chromosome transmission rates, 187–194
polymorphism, multiple chromosome in *Gobius*, 3–7
polymorphism, opportunity for, in social hymenoptera, 25–36
population size and random genetic drift, 65–70
populations of house sparrows, rates of evolution in, 15–23
predicting inbreeding and outbreeding potential, 397–411

predicting properties of second cycle hybrids, 121–129

quantitatively varying characters in barley, 343–348, 349–352

random genetic drift, 65–70
recombination frequency between stocks of *Drosophila*, 85–98

Second cycle hybrids, prediction of phenotype distribution in, 121–129
selection in inbred populations of *Drosophila*, 195–202
selection responses to and genetic analysis, 71–83
selection, retrospective, of inbred families of *Nicotiana rustica*, 255–260
self-incompatibility, gametophytic, 131–138, 139–144
self-incompatibility, in *Plantago lanceolata*, 53–63
self-incompatibility, in primroses, 227–234
sex chromosome evolution, 149–158
sex ratio equilibrium and sibmating, 179–185
social hymenoptera with worker-produced males, 25–36
somatic chromosome disposition, Bennett's model of, 171–177
spontaneous interchange heterozygote mosaic, 235–243
sporogenic reversion frequency in *Petunia hybrida*, 373–379
spot pattern character in *Maniola jurtina*, 275–284
streaked and unstreaked morphs of snails, 103–105
structural genes, chromosomal location of, 381–383
structural rearrangement in Brassica and potatoes, 165–170
superior inbreds, sources of, in *Nicotiana rustica*, 255–260

technique, new for N-band identification, 333–341
Thummi-specific chromosome regions, 159–163
thymidine kinase activity (Abs.) 424(25)
two-spored Basidiomycetes, 391–395

variability and heterozygosity in chum salmon, 313–322
variation in genome size in *cyprinidae*, 297–305

Wrights shifting balance theory of evolution, 323–332